

Talking points for May 25th call with AF Dr. TerMaath

Goal: get AF to submit next EBR Workplan as Draft Final, instead of final, and allow technical team to continue discussions to try to resolve differences.

- The Williams AFB Site 12 ROD Amendment selected SEE implementation followed by Enhanced Bioremediation, which will achieve RAO's (i.e., MCLs in groundwater) within 20 years.
 - "As for the original remedy, the expected outcome of the revised groundwater remedy is that concentrations of residual LNAPL in saturated soil and dissolved contaminants in groundwater will be reduced to levels that will no longer result in contaminant concentrations in groundwater exceeding cleanup levels. The revised groundwater remedy will achieve groundwater cleanup levels in an estimated 20 years." (Section 5.3 of the ROD Amendment).
- SEE was implemented at Site 12 for approximately 18 months before being discontinued prematurely, so that hundreds of thousands of gallons of LNAPL and contaminants of concern remain at the site.
- The Regulatory Agencies technical team used current overall site conditions, and current mass estimates obtained from the AF contractor (AMEC) to develop ~~and conducted~~ a conservative model to estimate the remediation timeframe if EBR is implemented at the site under current conditions:
 - **Timeframe for remediating the lower saturated water bearing zone (LSZ) is 30-50 years; 100-200 years in the upper water bearing zone (UWBZ), where most of the contaminant mass remains today.**
 - **Regulatory Agencies would consider this remedy failure.**
- There are at least 5 City of Mesa municipal water wells within 4-5 miles downgradient of the site, along with planned development and other closer smaller supply wells .
- No transport modeling has been conducted to evaluate potential offsite migration of groundwater contamination and possible impact on the water supply wells.
- **AF needs to conduct transport modeling, using data from the site, to evaluate potential impacts to offsite wells from groundwater migration.**
- This is a complex and complicated site, and a complex and complicated remedial technology. The Regulatory Agencies do not want to run the risk of potential remedy failure in 15 years.
- Regulatory agencies have significant concerns about the efficacy of EBR, but want to work with AF in the hopes of resolving the issues without going to formal dispute:
 - **AF should submit the next EBR Workplan as Draft Final, not Final;**
 - **Let The agencies' technical team is developing ~~technical team develop~~ specific milestones and criteria for evaluating EBR in the short term to prevent remedy failure in the long term, and focusing on adapting the ~~on AF-developed~~ Decision Tree to incorporate safeguards for preventing remedy failure.**

Commented [JE1]: Just a thought, to clearly mention that the additional LNAPL was not part of the original plan:

SEE was implemented at Site 12 for approximately 18 months before being discontinued prematurely. This has resulting in hundreds of thousands of gallons of LNAPL and contaminants of concern, above what was expected to be present at the start of EBR, remaining at the site.

Commented [dCK2]: UWBZ is unconfined, LSZ below is confined, the two separated by an Aquitard (lower permeable zone LSZ - just fyi, dont need to go into that detail here unless you think it useful

Commented [WU3]: You probably meant the combined AF/AMEC and Agencies' technical team, rather than just the Agencies' technical team, as I have used here.

So, maybe: *"The agencies' and AF's technical teams should work together to develop additional specific milestones and criteria for evaluating EBR in the short term to prevent remedy failure in the long term, focusing on adapting the AF-developed Decision Tree to incorporate safeguards for preventing remedy failure."*

Note that AF/AMEC will claim that they already have specific milestones and criteria for evaluating EBR in the short term in the Decision Tree. Which is why I wrote "additional".

Commented [JE4R3]: I agree. I like this new wording